# Micsig

# PRODUCT CATALOG

# Smart Digital Oscilloscope

## STO1000E Series

- Powerful Android system for faster response and smoother operation
- Real-time WiFi data transmission and HDMI display
- User-friendly soft keyboard makes convenient input
- 8-inch touch screen combines high-quality knobs,easy operation,powerful multifunction
- 7500mAh large lithium-ion battery,up to 5-hour continuous operation
- Support APP(iOS & Android) and Windows PC software remote control
- Built-in 8G storage capacity,support video recording
- Level 256 grayscale and color temperature display

Dimension: 280*180*50mm
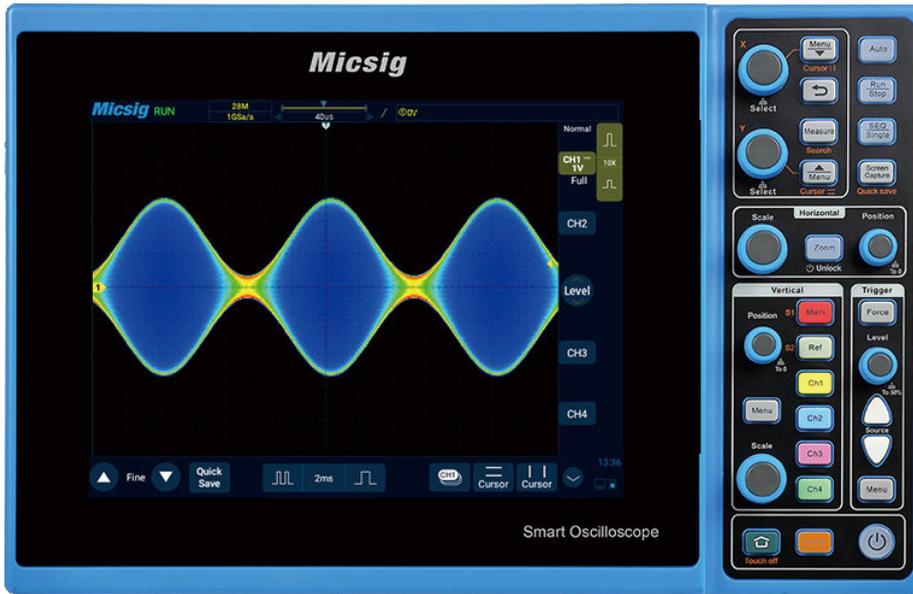Weight: 4CH Oscilloscope  1425g      Battery  320g

| Model | STO1102E | STO1104E | STO1152E |
|---|---|---|---|
| Analog channel | 2 | 4 | 2 |
| Bandwidth | 100MHz | 100MHz | 150MHz |
| Rise time | ≤3.5ns | ≤3.5ns | ≤2.3ns |
| Ram | 2G | | |
| Max capture rate | 130,000wfm/s | | |
| Sample rate | 1GSa/S (single channel) | | |
| Memory depth | 70Mpts (single channel) | | |
| Bandwidth limitation | 20MHz, High pass,Low pass | | |
| I/O Port | Wi-Fi、LAN、HDMI、USB Host、USB Device、DC Power、Aux out | | |
| APP | Support Android / IOS | | |
| Built-in storage capacity | 8G | | |
| Trigger types | Edge, Pulse Width, Logic, Video, Runt, Timeout, Nth Edge, Slope | | |
| Display | 8" Industry TFT LCD touchable capacitive screen, resolution: 800*600 pixels, 14*10 grids | | |
| Automatic Measurements | Period, Frequency, Rise Time, Fall Time, Delay, Positive Duty Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Burst Width, Positive Overshoot, Negative Overshoot, Phase, Peak to Peak, Amplitude, High, Low, Max, Min, Mean, Cycle Mean, RMS, Cycle RMS. | | |
| Math function | +, -,  *, /,  FFT | | |
| Vertical resolution | 8 bits | | |
| DC gain accuracy | ≤2% | | |
| Vertical scale | 1mV/div~10V/div | | |
| Serial bus trigger and decode | UART、CAN、LIN、SPI、I2C、(1553B,429 are optional) | | |
| Battery | 7.4V 7500mAh, rechargeable lithium battery | | |

Battery

# Smart Digital Oscilloscope

## STO1000C Series



- Support APP (iOS and Android ) and PC software to remote control oscilloscope
- Support Wi-Fi data real-time transmission and HDMI high-definition display
- Support video recording and built-in 8G storage capacity
- Support 256-level intensity grading and color temperature display
- Unique file management system, easy to save and transfer waveform data
- 8 inches full touch capacitive screen and high quality button and knobs make the operation more simple and smart

Dimension: 280*180*50mm
Weight: 4CH Oscilloscope  1425g     Battery  320g

| Model | STO1102C | STO1104C | STO1152C |
|---|---|---|---|
| Analog channel | 2 | 4 | 2 |
| Bandwidth | 100MHz | 100MHz | 150MHz |
| Rise time | ≤3.5ns | ≤3.5ns | ≤2.3ns |
| Sample rate | 1GSa/S(single channel) | | |
| Max capture rate | 80,000wfm/s | | |
| Memory depth | 28Mpts (single channel) | | |
| Bandwidth limitation | 20MHz,High pass,Low pass | | |
| I/O Port | Wi-Fi、LAN、HDMI、USB Host、USB Device、DC Power、Aux out | | |
| APP | Support Android / IOS | | |
| Built-in storage capacity | 8G | | |
| Trigger types | Edge, Pulse Width, Logic, Video, Runt, Timeout, Nth Edge, Slope | | |
| Display | 8" Industry TFT LCD touchable capacitive screen, resolution: 800*600 pixels, 14*10 grids | | |
| Automatic Measurements | Period, Frequency, Rise Time, Fall Time, Delay, Positive Duty Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Burst Width, Positive Overshoot, Negative Overshoot, Phase, Peak to Peak, Amplitude, High, Low, Max, Min, Mean, Cycle Mean, RMS, Cycle RMS. | | |
| Math function | +, -,  *, /,  FFT | | |
| Vertical resolution | 8 bits | | |
| DC gain accuracy | ≤2% | | |
| Vertical scale | 1mV/div~10V/div | | |
| Serial bus trigger and decode  (Optional) | UART、CAN、LIN、SPI、I2C、1553B、429 | | |
| Battery (Optional) | 7.4V 7500mAh, rechargeable lithium battery | | |

STO1000C plus version include battery,screen mask,carry strap.



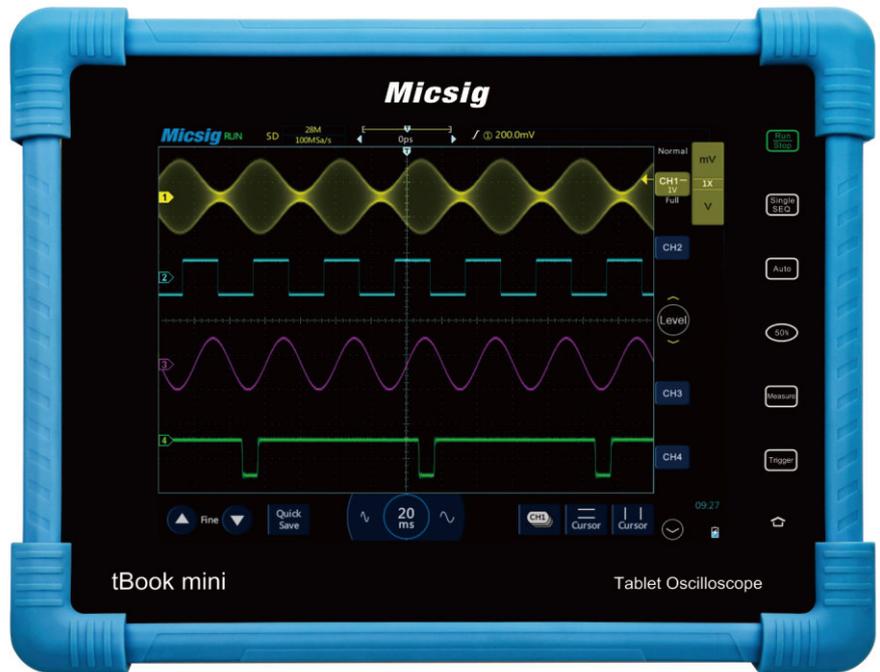Battery

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# Digital Tablet Oscilloscope tBook mini

## TO1000 Series

- Innovative software design and high quality hardware
- Built in 8000mAH lithium battery, up to 5 hours continuous working time
- 8''TFT LCD & 800*600 pixels high resolution Multi-touch capacitive screen
- Support 5 kinds of bus trigger and decoding(optional): UART CAN SPI I2C LIN
- 8 types of trigger function: Edge, Pulse, Logic,Timeout, Runt, Slope, Nth Edge, and Video
- Built-in 8G storage capacity, waveforms and screenshots can be viewed and edited in scope, support Video record and file management.
- Various I/O port: LAN、Wi-Fi、USB Host、USB Device、HDMI、Aux out
- Support APP (iOS and Android )and PC software remote control

### APPs(iOS and Android)

### HDMI

Dimension: 250*200*55mm
Weight: 4CH Oscilloscope  1125g      Battery  263g

| Model | TO1102 | TO1104 | TO1152 |
|---|---|---|---|
| Bandwidth | 100MHz | 100MHz | 150MHz |
| Rise time | ≤3. 5ns | ≤3. 5ns | ≤2. 3ns |
| Input channel | 2 | 4 | 2 |
| Sample rate | 1GSa/S (single channel) | | |
| Memory depth | 28Mpts (single channel) | | |
| Max capture rate | 130,000wfm/s | | |
| Bandwidth Limit | 20MHz, High pass, Low pass | | |
| Interface | Wi-Fi、LAN、HDMI(Optional)、USB Host、USB Device、DC Power Aux out | | |
| Screen | 8 inches TFT LCD 800*600 pixels display resolution, 14*10 display range | | |
| Battery(optional) | 7.4V 8000mAH, rechargeable lithium battery | | |
| PC Software | PC software and APP (support iOS and Android) via Wi-Fi or USB | | |
| Serial bus trigger and decode  (Optional) | UART、CAN、LIN、SPI、I2C、1553B、429 | | |
| Cursor types | Horizontal, Vertical, Cross | | |
| Automatic Measurements | Period, Frequency, Rise Time, Fall Time, Delay, Positive Duty Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Burst Width, Positive Overshoot, Negative Overshoot, Phase, Peak to Peak, Amplitude, High, Low, Max, Min, Mean, Cycle Mean, RMS, Cycle RMS. | | |
| Vertical resolution | 8 bits | | |
| DC gain accuracy | ≤2% | | |
| Vertical scale | 1mV/div~10V/div | | |

TO1000C plus version include battery,screen mask,carry strap.
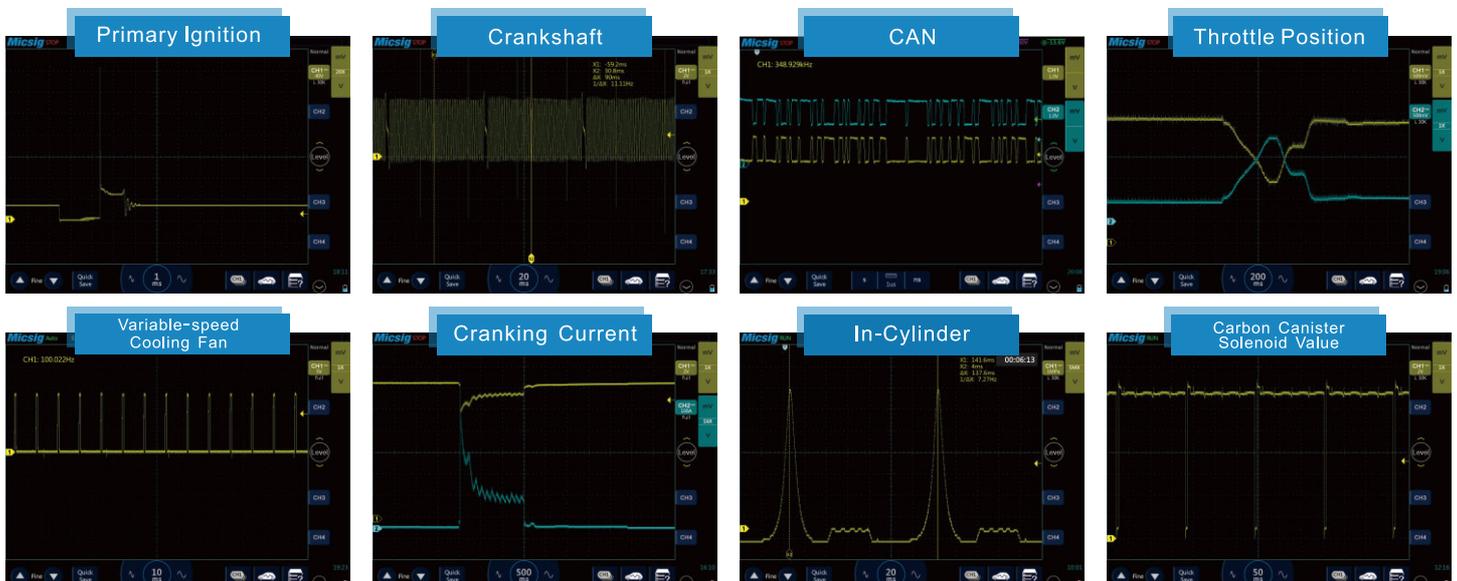
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# Automotive Tablet Oscilloscope

## ATO1000 Series

- Various automotive diagnostic function：Ignition, sensor, actuators, networks, combination test and pressure test.
- Easy to use, convenient to operate in field, when battery included.
- Support APP to operate oscilloscope remotely.
- Support Wi-Fi to transfer waveform data.
- Internal 8G memory to save big waveform data.
- 8 inches full touch capacitive screen, 800*600 pixels.

Dimension: 250*200*55mm

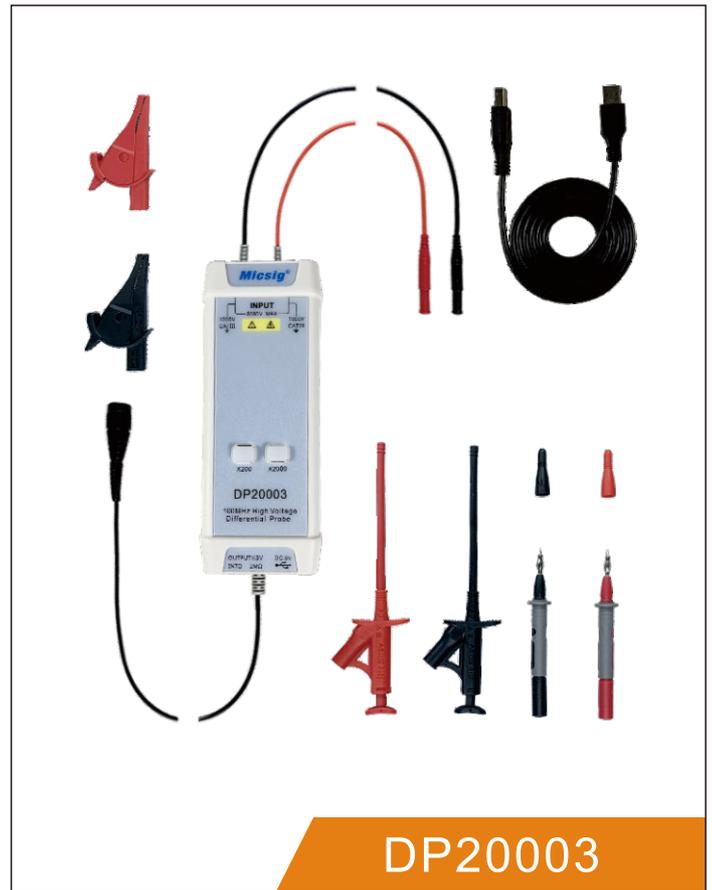| Model | ATO1102 | ATO1104 |
|---|---|---|
| Bandwidth | 100MHz | 100MHz |
| Channel | 2 | 4 |
| Real time sample rate | 1G Sa/S（single channel） | 1G Sa/S（single channel） |
| Memory depth | 28Mpts (single channel) | 28Mpts（single channel） |
| Support test | Charging circuit, starter circuit, sensor, actuator, ignition test, communication test (including CAN, LIN, Flexray, K, etc.), pressure test (cylinder pressure, intake and exhaust pressure, fuel pressure, etc.) | |
| Bandwidth limitation | Full bandwidth, low pass | |
| I/O port | Wi-Fi、LAN、HDMI、USB Host、USB Device、GND、DC Power | |
| Accessories | Lithium battery, power adapter, power cord, 2*BNC banana lines, 2*alligator clips, 2*Flexible needle,2*P130A probes | Lithium battery, power adapter, power cord, 4*BNC banana lines, 4*alligator clips, 4*Flexible needle, 4*P130A probes |

| Primary Ignition | Crankshaft | CAN | Throttle Position |
|---|---|---|---|

| Variable-speed Cooling Fan | Cranking Current | In-Cylinder | Carbon Canister Solenoid Value |
|---|---|---|---|

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# High Voltage Differential Probes

## DP Series



DP10013



DP20003

| Model | DP10007 | DP10013 | DP20003 |
|---|---|---|---|
| Bandwidth | 100MHz | 100MHz | 100MHz |
| Attenuation Rate | 10X<br>100X | 50X<br>500X | 200X<br>2000X |
| Rise Time | 3. 5ns | 3. 5ns | 3. 5ns |
| Accuracy | ±2% | ±2% | ±2% |
| Input Impedance | 8MΩ/1.25pF(differential)<br>4Ω/2.5pF(single-ended to ground) | 10MΩ/1pF(differential)<br>5MΩ/2pF(single-ended to ground) | 50MΩ/1.25pF(differential)<br>25MΩ/2.5pF(single-ended to ground) |
| Maximum Differential Test Voltage(DC + AC PK) | 70V(10X)<br>700V(100X) | 130V(50X)<br>1300V(500X) | 560V(200X)<br>5600V(2000X) |
| Output Voltage | ≤7V | ≤3V | ≤3V |
| Overrange Alarm | Button light flashes | Button light flashes | Button light flashes |
| Power Supply | DC 5V, USB Supply | DC 5V, USB Supply | DC 5V, USB Supply |
| Power | 1.25W | 0.85W | 0.85W |
| Dimension | 14.5cm*6cm*2.7cm | 14.5cm*6cm*2.7cm | 14.5cm*6cm*2.7cm |
| Input cable length | Approx 45cm | Approx 45cm | Approx 45cm |
| Output cable length | Approx 90cm | Approx 90cm | Approx 90cm |

# AC/DC
# Current Probe

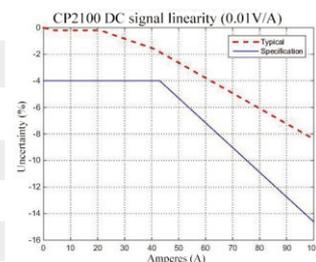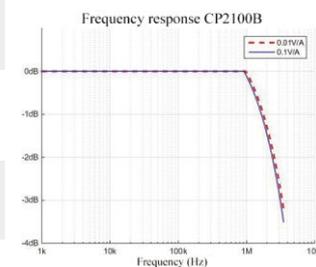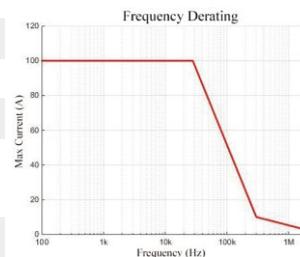Dimension: Control box 108*56*26mm
Probe head 11*6.1*2.5mm

- Bandwidth up to 2MHz
- Two optional current measurement range: 10A/100A
- Reliable and exquisite design
- USB power supply, no need extra power adaptor
- Standard BNC interface for oscilloscopes or multimeter

| Series | CP2100 | |
|---|---|---|
| Model | CP2100A | CP2100B |
| Bandwidth | DC~800KHz | DC~2MHz |
| Rise time | ≤437.5ns | ≤140ns |
| Ranges | 10A/100A | |
| Output sensitivity | 0.1V/A（10A）<br>0.01V/A（100A） | |
| DC accuracy(typical) | 3%±50mA（10A）<br>4%±50mA（100A，500mA~40Apk）<br>15%（100A，40Apk~100Apk） | |
| Signal delay | ＜150ns（10A）<br>＜200ns（100A） | |
| Current measurement range | 50mA~10Apk（10A）<br>1A~100Apk（100A） | |
| Maximum measurable Current | 100Apk，70.7Arms（DC+ACpk）<br>200Apk-pk，70.7Arms（AC） | |
| Maximum working voltage | CAT III 300V CAT II 600V | |
| Maximum float voltage | CAT III 300V CAT II 600V | |
| Maximum conductor Diameter | 13mm | |
| Overload indication | buzzer beeps, button light flashes | |
| Power supply | DC 5V | |

# Accessories

**Model:MS_A_001**
**Test leads**

**Model:MS_A_001_4**
**BNC to BNC cable**

**Model:T3100**
**High Voltage passive probe**

**Model:P130A**
**Passive probe**

**Model:MS_A_003**
**Insulation test needle**

**Model:MS_A_004**
**Pincer clips**

**Model:MS_A_005**
**Multimeter probes**

**Model:MS_A_006**
**Insulated alligator clips**

**Model:MS_A_007**
**Non-destructive piercing needle**

**Model:MS_A_008**
**Secondary ignition pickup**

**Model:MS_A_009**
**Flexible piercing needle**

**Model:MS_A_010**
**Multimeter pen**

**Model:MS_A_011**
**Fine copper test alligator clips**

**Model:MS_A_012**
**Quick piercing test hook needle**

**Model:MS_A_013**
**HDMI cable**

**Model:Adapator**
**Delta power adapter**

**Model:MS_handbag**
**Oscilloscope handbag**

**Model:MS_belt**
**Carry Strap**

**Model:MS_mask**
**Screen protector film**

**Model:ACP1000**
**AC current probe**